

The Pendulum— Summer 2026

Issue 27



Welcome to the summer 2026 issue of the Pendulum.

As I write my final welcome as Head of Department, I find myself reflecting on what has been an immensely rewarding five years. Serving in this role has been both a privilege and a pleasure, and I am deeply grateful to everyone who has contributed to our department's continued success. You will be in safe hands as Professor Neil Wilson becomes Head of Department on 1st September.



The higher education sector is currently navigating unprecedented financial challenges, stagnant domestic tuition fees, rising operational costs, and declining international student enrolments have pushed a significant number of UK universities **but not Warwick**, into budget deficits. We are facing strong headwinds (especially to STFC funded research), but our department continues to do well!

Some other staffing changes to mention. Professor Elizabeth Stanway will become Head of Astronomy and Astrophysics, Professor Nick Hine will become Head of Theory and Professor Tony Arber will become Head of CFSA from the new academic year. With thanks to Professors Danny Steeghs, Julie Staunton, and Sandra Chapman for their service.

Dr Claire Hurley will take on leadership of postgraduate matters as Director of Graduate Studies and Dr Dan Bayliss will take on the role of Undergraduate Admissions Tutor.

As another academic year comes to a close it is timely to congratulate our finalists on their achievements and I very much look forward to celebrating with graduands and their families and friends at our graduation ceremony on Monday 27th July.



The heat has been a challenge over the last few weeks. During this time we have had exams, exam boards, open days, conferences and other activities running. Thank you to everyone for continuing to support our students and one another in the exceptional hot weather. In particular, a thank you to the Student Office team for managing the significant number of in-house exams for students with alternative exam arrangements during this time, and to Kevin Murphy, Patrick Ruddy, Pearse Towers and Ryan Williams for all their support with office moves. The summer BBQ was a huge success, with the ice cream van a very welcome sight!

Finally, I hope you are all able to enjoy a well-deserved break over the summer months, and cannot overemphasise the importance of taking time to relax and re-charge.

As ever, all contributions to the newsletter are welcome! To help us all stay connected please share any items of interest to physicsadmin@warwick.ac.uk.

Best wishes,

M. Denton

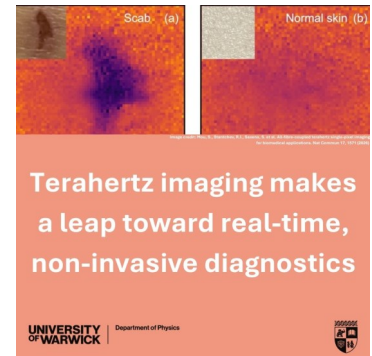
[view the other new staff profiles.](#)

New research stories

Professor Emma MacPherson with colleagues at the University of Exeter have developed a fully fibre-coupled terahertz (THz) imaging system that improves the speed, resolution, and clinical practicality of terahertz imaging.

The vision of the project is to use this new imaging approach to deliver faster diagnosis and reduce the need for invasive procedures for patients with skin lesions.

[Find out more by reading the press release.](#)



A team of astronomers, led by Dr Marina Lafarga Magro have developed a new artificial intelligence tool called RAVEN to validate and detect new planets from NASA's Transiting Exoplanet Survey Satellite (TESS).

The recent publication in Monthly Notices of the Royal Astronomical Society (MNRAS) applies their newly developed tool to observations of over 2.2 million stars collected during TESS's first four years of observations.

[Read the press release.](#)



A team of astronomers, led by Amena Faruqi have discovered a new way to find and characterise planets that are too deeply embedded in their birth environment to be seen directly.

The team from the University of Warwick, MIT and McMaster used detailed computer simulations and data from powerful telescopes, such as ALMA, to determine how planets of different masses shape the dust rings around them.

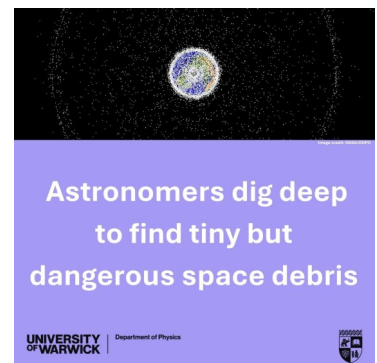
[Read the press release.](#)



Warwick researcher, Dr James Blake has led an international research project to uncover some of the faintest debris in geosynchronous orbit that have ever been observed.

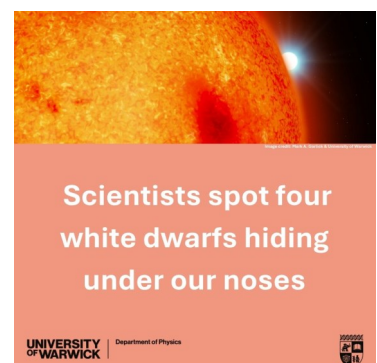
The study, published in the Journal of the Astronautical Sciences has found fragments as small as 5cm in size obtaining valuable data for characterising their behaviour.

[Find out more by reading the press release.](#)



Dr Mairi O'Brien and a team of astronomers at the University of Warwick and Colorado Boulder have used the Hubble Space Telescope to find four new 'local' stars. The observations have revealed four white dwarfs orbiting in double star systems in our nearby region of space.

[Read the press release.](#)



Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles.](#)

BBC Sky at Night filming

Dr Ravindra Desai from our Centre for Space, Fusion and Astrophysics joined Dame Maggie Aderin-Pocock to discuss space weather and the forecasting tools that Ravi is developing that will help protect us from future risks

[Watch the full episode on BBC iPlayer.](#)



Inclusion update

When I started at Warwick I saw a range of female role models, from post-docs to professors. This was a change from other places I'd worked at, and it made me feel that this was a place I could belong. The department built on this welcoming environment with the IoP Juno Champion award, and now with the IoP Inclusion Award we are looking at inclusion more generally – and how we can make the department fairer and more supportive for everyone. We recently submitted the annual Inclusion Award report, and huge thanks to the 22 people who contributed in some way. The feedback event on the concourse on International Women's Day was very well attended, and gave some excellent feedback on what's good already, and what we could do to improve. Thank you to everyone who was involved!

We are very excited to welcome the Blackett Lab Family back to campus in September to run their Amplify conference – this is designed to offer networking and role-models to black undergraduate physicists, recognising that there are still few black role models in academia. We will also be welcoming the PG Women in Physics conference in April.

Obviously, both of these conferences are focused on specific demographics, but it's important to make sure inclusion is for everyone. We know, for example, that there are huge problems for white working class men in accessing university. Through the outreach programme we are prioritising widening participation schools, and the new role models webpage will highlight different people and different career paths through physics.

One person can't understand everyone's perspective, no matter how hard they try. So if you have ideas for how we can support the wider physics community, but you need a small amount of funding for it, please get in touch – we will be opening up an inclusion seed fund soon! If you have any other constructive suggestions on how to improve inclusivity, or feedback about ways we might be excluding without realising, you can find our feedback form here: [Feedback](#)

On the outreach front, we've had another great year with the Christmas Lectures, the XMaS Scientist Experience trip, contributions to Resonate Festival, Planetarium activities, Coding with Sophie... Special congratulations to Dmitrii Kolotkov, who won a WAPCE award for the Hearsall Family Science Club, and was also awarded IoP funding to take the families to the Royal Institution and the Greenwich Observatory. If you'd like to get more involved with outreach, we'll be sending out a questionnaire soon to find out which age groups and what activities people can offer, so we can match you up with school requests.

Useful links:

[Home | The Blackett Lab Family](#)

[Changing the conversation about boys and young working-class men in education - The Sutton Trust](#)

Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).

REF2029

As many of you already know, Physics are working towards our Departmental submission for the REF2029 exercise, where REF stands for Research Excellence Framework (as before in, for example, 2014 and 2021) and 2029 refers to the year in which the results of the exercise will be announced. Our submission will be sent to Research England for assessment in November 2028, so we have roughly 2 years and 5 months to complete all the work from our side. It is important that we achieve the best result that we can both for the research reputation of the Department and the wider university. The quality of our submission as judged by the REF panel will result in the award of a sum of funding to the university “won” by Physics and we want to maximise this by gaining the highest ranking possible. To achieve this, we will need to submit the very best of the work published by our staff to the REF together with our best Impact Case Studies and a well-structured Strategy, People and Research Environment statement that showcases the Department and its many excellent facets.

Thanks to all of you, we have made good progress in the last two terms. We have a large number of published papers that you have told us about from which to choose those to be assessed by the REF panel of academic physicists. It is going to be a significant job of work to choose those world-leading papers. The Cluster Heads are working on how to do that over the summer through a series of workshops led by the Departmental REF Management committee. They will ask other members of the Clusters to be involved in this work as time goes on. Thank you in advance to both the Cluster Heads and their colleagues who accept the invitation to be involved in this important work.

During these last few months, we have also done important work to understand the Open Access eligibility requirements for papers to be acceptable for this REF. We urge you all to use WRAP for the time being as your depository of choice for papers going forward and to make every honest effort to make sure your contributions to shared authorship papers are acknowledged clearly. It is also probably worth you checking your details on WRAPs replacement now, Symplectic Elements (<https://elements.warwick.ac.uk/>) which contains far more information than just outputs, and you should keep up to date with planned changes on WRAP that can be found from the Library's webpages.

Finally, we reiterate the very important point that it will be very likely that not every staff member with responsibility for independent research will have a paper in the final list submitted in late 2028. As has been stated previously by the Provost, we continue to reassure you that this should not be a matter of concern for any individual as set out in the Code of Practice; contribution or not to the REF submission is not relevant in any other career context. You and your work as a member of staff in the Department remains highly valued in a range of contexts of which the REF is only one.

Starters and Leavers (28 February-30 June)

The department welcomes...

We say thank you and good luck to...

Ioannis Apergis	George King	Francisco Alvarado	Laura Millson
James Bailey	Marcus Madurai	Cesar	
Martin Cafolla	Rebecca Meadowcroft	Joe Gillham	Raul Iraq Rabadan Trejo
Donald Evans	Pooneh Nazari	Ross Hunter	Ayesha Rahman
Carlos Garcia Rosas	Hisanori Oshima	Reinhard Maurer	Billy Shrive
Ben Gosling	Adam Prince	Ed Mewes	Daniel Swinnock
Andrew Jackson	Yuan Shen		
Anjali John	Sally Thompson		
Konstantinos Karampelas			

Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).

Staff Profile



Name, Job title: Sally Thompson (She/Her), Undergraduate Coordinator

My role involves: Supporting our undergraduate students and teaching staff through the academic cycle, as part of the Student Office team.

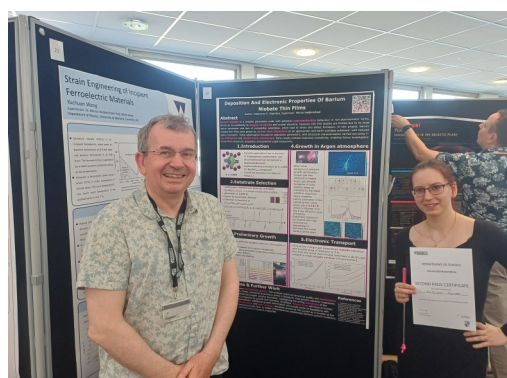
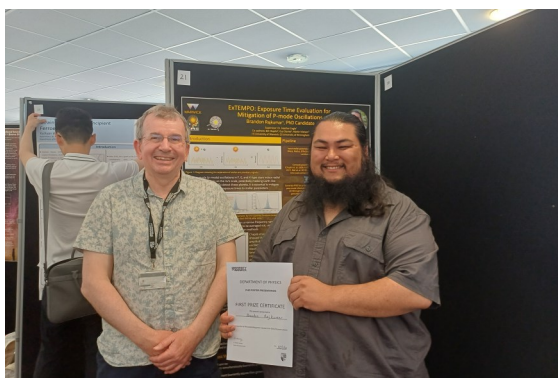
My career history: After graduating from the Birmingham Conservatoire in 2000, I worked as a freelance cellist and cello/strings teacher. In 2008 I undertook my teacher training and subsequently became Head of Music for a large secondary and sixth form school. In 2023 I was ready for a career change but being keen to remain in education I was very pleased to find a place at the University of Warwick, working in the Psychology department as an Undergraduate Programmes Officer. I really enjoyed my time in Psychology, but am now very pleased to have joined the Physics department – thanks for already making me feel so welcome.

When not at work, you can find me: I spend much of my time with family. My husband and I are adapting to life as 'empty nesters' as both daughters have recently left home. We're enjoying catching up with them at various coffee shops and National Trust houses, and at the moment for world cup matches too – I'm doing pretty well in our family sweepstake! I'm also happy that I've now got a dedicated music room at home, so I'm enjoying more time for making music again.

Postgraduate Prize winners

The second-year PhD poster session took place on Wednesday 27th of May on the Physics concourse. The quality of posters was excellent and the discussions stimulated fascinating.

Brandon Rajkumar won first prize for his poster (ExTEMPO: Exposure Time Evaluation for Mitigation of P-mode Oscillations) of Astronomy and Astrophysics, and the second Prize was awarded to Katarzyna Sopinska (Deposition and Electronic Properties of Barium Niobate Thin Films) of Condensed Matter Physics.



Award Conferrals (March 2026– June 2026)

Congratulations to the following people who have been awarded Doctor of Philosophy in Physics:

Ellen Devereux

Martha Turvey

Aaron Malcolm

Mujahid Shiffa

Alex Newman

Eliot Walton

Hannah Pilsworth

Congratulations to those who have been awarded a Master of Science (by Research) in Physics:

Miles Armour

Mateusz Potrykus

Vaishnavi Ravi

Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).

STEM Connect Hoardings

On Monday 16th June, year 5 and 6 students from Limbrick Wood Primary School visited the Department of Physics to enjoy talks, activities and design artwork as part of our ongoing outreach collaboration with the school, and as part of the University STEM Connect programme.

The visit was organised by Physics Outreach Officer, Ally Caldecote who has worked with Limbrick Wood for a number of years. The visit started with a talk by Professor Don Pollacco, an astrophysicist at the University of Warwick who talked about extrasolar planets. Don spoke to the students about his journey into Physics research and how the space landings inspired his enthusiasm and drive when he was around the same age as the students.

Not only was the visit supported by colleagues from Physics, but also from the Department of Engineering and Department of Chemistry. The students were split into two groups for the hands-on science session, where half visited the Department of Engineering to design 3D shapes for printing with Dr Yudhi Ariadi and Dr Oksana Trushkevych and half enjoyed physics activities.

Physics activities were led by Dr Luke Smith and Martha Turvey from the Ultrasound group who showed the students how to detect invisible cracks in pipes, aeroplane wings and train tracks. The students wore appropriately sized lab coats and spent the afternoon using the same ultrasound techniques that researchers use to identify hazardous cracks.

The students also used simulations to create their own planets and solar systems, colliding stars together to create white dwarfs and black holes and learn about the creation of stars and planetary systems across the university with astronomer, Gareth Jones.

As part of the visit, the University STEM Connect team joined the group and the students had the opportunity to create some of their Physics themed artwork which will be displayed on the hoardings surrounding the ongoing building works. The theme for the artwork was Science of the Future.

Thank you to all those who volunteered their time on the day: Dr Gloria Zhao (Diamond group, Physics), Dr Livia Bartok-Partay (Chemistry), Amena Faruqi (PhD student, Astronomy & Astrophysics, Physics), Professor Rachel Edwards (Ultrasound Group, Physics), Paul McCarroll (Electronics technician, Physics), Helen Murray (Physics student office), Hanako Bell (Administrator, Physics), Katherine Branch (Director of Operations, Physics) as well as the STEM Connect team.

The hoardings have since been installed in June showcasing the SEM Faculty, the University's Connect programme, and innovations in research and teaching. 'Inspiring Curious Minds' highlights the school engagement vent and created their images on science for the future. Check them out opposite the NAIC building!



Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).

Warwick Award for Public and Community Engagement

Congratulations to [Dr Dimitrii Kolotkov](#) who has been announced as the winner of a Warwick Award for Public and Community Engagement in the Community Impact category.

Alongside Dimitrii's research, he founded and led the Family Science Discussion Club, a free community initiative based at Hearsall Community Academy in Coventry that brings families together to explore contemporary science through interactive talks and hands-on activities delivered by scientists and science communicators.

[Find out more about Dimitrii's nomination.](#)

The awards were made by the university's glass blowers Daisy Ashworth (Physics) and Steve Williams (Chemistry).



Warwick Awards for Teaching Excellence

Congratulations to Emily Roberts (Astronomy and Astrophysics) and Kai Ross (Diamond Group) who are two postgraduate students shortlisted for Faculty of SEM teaching awards. The postgraduate Researchers Who Teach Awards honour colleagues who, while pursuing their own studies, enrich the student experience and strengthen our academic community through their teaching.

Upcoming Dates

Anyone can add an event to the Physics [calendar](#). [Let us know if you can help out at our Open Days.](#)

Physics Graduation —Monday 27th July

A-Level results day—Thursday 13 August

[Amplify Conference](#)—Thursday 10th—Friday 11th September

Welcome Week—Monday 29 September—Sunday 5 October

Start of Autumn term—Monday 6 October

Open Day—Saturday 10 October

Open Day—Saturday 24 October



Applications are now open for Social Inclusion Talent Programmes.

Our Social Inclusion Talent Programmes provide safe spaces for colleagues who traditionally find themselves excluded and under-represented in higher education to identify, understand and address challenges and barriers to career progression.

[Accelerate](#) is for disabled, women, LGBTQIA+, and ethnic minority **staff at grades 7 and 8**, both in Academic and Professional Services roles and their managers.

[EmpowerUs](#) is for disabled, women, LGBTQIA+, and ethnic minority **staff at grades 4, 5, and 6**, both in Academic and Professional Services roles and their managers.

To learn more about our internal programmes and find out how to apply visit [Inclusive Talent Programmes](#).

Applications close on 31st July.

Campus photographs

We'd love to start sharing any photographs that you have taken whilst on campus, so we can highlight these in the newsletter. If you have any photos that you'd like to share, please send them to physicsadmin@warwick.ac.uk

Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).

Professional Development Review (PDR)

The PDR is designed to support staff by encouraging constructive and supportive conversations between an individual and their line manager or reviewer. The conversation should provide:

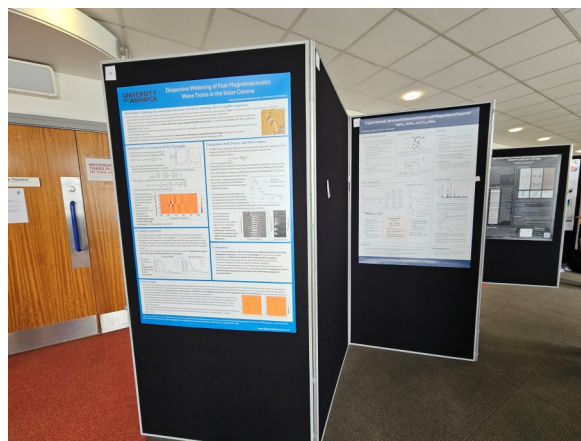
- A 'look back', allowing staff to capture and reflect on achievements, contributions, and development during 2025-26
- A 'look forward' to 2026-27 to agree future goals and any development or support required.

The [University's values and behaviours](#) provide a helpful framework to reflect on, as they help us to be at our best and to deliver effectively on the [refreshed strategy](#), making it possible for Warwick and its people to thrive.

Line managers, or nominated reviewers, are encouraged to hold PDR conversations with their reviewees between 1 June and 31 July 2026.

MPhys Finalists poster session

On Tuesday 16th June, 118 MPhys final year students presented their research posters, showcasing their final year research project. Thank you to all colleagues who spent time chatting to the students about their work.



STEM Connect programme update

Following the end of RIBA Stage 4, the STEM Connect programme has been reviewing options for delivering the Phase 1 building.

The team have tested a Construction Management (CM) approach with Willmott Dixon Construction (WDC), where the University contracts directly with specialist contractors, coordinated by a construction manager. Reviews of the design, costs, programme and risks have given us confidence that the approach is viable and manageable, and the University Executive Board has approved proceeding with CM, working with WDC as Construction Manager.

We are now in an implementation phase, working towards RIBA stage 5 (construction) starting in **November 2026**, with some mobilisation on site over the summer. We expect some targeted stakeholder engagement will be necessary to finalise key areas of the design, and will liaise with colleagues on a case-by-case basis.

Building completion is **currently scheduled for February 2030**, with teaching expected to commence in the new building from **Autumn term 2030**. This means undergraduate students joining in 2027/28 could be taught in the building in their final year.

The [STEM Connect](#) external website will be updated for the June open days.

For Physics, decant from offices in Physical Sciences continues with EPP moving to Humanities next month, along with the rest of CFSA to Millburn House, and Theory and Teaching staff into the main Physics building later in the summer. There will be smaller internal moves to accommodate these group moves. **Moves will be complete by October 2026** - thank you to everyone for their cooperation and patience, and to Kevin Murphy and technical colleagues for their support with planning and moves.

Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).

International Conference on New Diamond and Nano Carbons (NDNC)

Dr Jiahui (Gloria) Zhao and Sam Frost, represented the Warwick Diamond Group at the International Conference on New Diamond and Nano Carbons (NDNC 2026).

The conference was held in Changchun, China, focusing on diamond synthesis and nano-carbon applications. Sam won a PhD student poster prize and Gloria (see picture) won an award for the best Early Career Researcher talk (Quantification of Dislocation and Inclusion Induced Strain in Diamonds for Advanced Devices) and initiated a new collaborative program of research on cubic Boron Nitride!



Resonate Festival

There was a strong Physics presence at the Resonate Summer Festival which took place on 30th May, on campus as a free, family-friendly event offering performances, science zones, and community activities.

Cameron Hunter, Anjana Wijesekara and Kai Ross ran a stand explaining and demonstrating some of the remarkable properties of diamond.

They also took advantage of the face painting to provide examples of coloured diamonds. Nitrogen Vacancy Defects make a diamond pink, vacancies produce green (or green-blue diamonds) and the boron acceptor at low concentrations give the diamond a blue colour.

The Resonate Festival is part of the [Warwick Institute of Engagement](#).



Annual Scientist Experience trip

The XMaS Scientist Experience trip took place at the end of June this year in Grenoble. The competition is open to all year 12 women who are studying Physics, with the application asking students to explain how they would benefit from the trip, as well as doing some research into a famous female scientist.

Sixteen students from across the UK attended the trip where they visited the ESRF in Grenoble, went on guided tours of the XMaS beamline and had the opportunity to have lunch with female scientists working at the ESRF (with a surprise visit from a previous student from the trip who was undertaking a summer placement at the ESRF).

The students are often the only women in their class, so the trip is not only about showing them what a career in STEM looks like, but also about supporting them to create friendships and networks with like-minded individuals.



Do you have a story that could be included in the next newsletter? Click [here](#) to let us know or [view the other new staff profiles](#).